

Winter is the Season for Colds

Colds are a self-limited illness from which virtually all people recover in a few days. The duration and severity of a cold varies from one person to another and also varies within the same individual over time.

How Colds Are Spread

Cold viruses grow mainly in the nose where they multiply in nasal cells and are present in large quantities in the nasal fluid of people with colds.

The highest concentration of cold virus in nasal secretions occurs during the first three days of infection. This is when infected persons are most contagious.

Cold viruses may at times be present in the droplets that are expelled in coughs and sneezes.

Nasal secretions containing cold viruses contaminate the hands of people with colds as a result of nose blowing, covering sneezes, and touching the nose. Also, cold viruses may contaminate objects and surfaces in the environment of a cold sufferer. Young children are the major reservoir of cold viruses and a particularly good source of virus containing nasal secretions.

Experiments have demonstrated that a cold virus readily transfers from the skin and hands of a cold sufferer to the hands and fingers of another person during which the Virus on the fingers is transferred into the nose and eye by finger-to-nose and finger-to-eye contact. Virus deposited in the eye promptly goes down the tear duct into the nose. Once in the nose, a cold virus is transported by mucociliary action to the adenoid area where it starts an infection.

In some instances, cold virus, which is expelled into the air in coughs and sneezes, may land in the nose or eye and cause infection.

The nose contains shelf-like structures called turbinates, which help trap particles entering the nasal passages. Material deposited in the nose is transported by ciliary action to the back of the throat in 10-15 minutes. Cold viruses are believed to be carried to the back of the throat where they are deposited in the area of the adenoid. The adenoid is a lymph gland structure that contains cells to which cold viruses attach.

Contaminated finger touches nasal mucosa and conjunctiva of eye

Cold symptoms appear as early as 10 hours after a cold infection has started and increase in frequency and severity for 48 hours. After 48 hours, the symptoms usually begin to decline as the result of the natural course of the illness. For this reason, a cold treatment will do the most good when taken at the first recognition of symptoms. The treatment is thus applied over the period when most illness is expected (the first 3 days of infection).

For more info visit www.commoncold.org.

Cold treatments recommended in commoncold.org have been properly tested and found to be effective. Their side effects are known and are acceptable for treating a mild illness like a cold. They include the following:

- O**lder antihistamines
- N**on-steroidal anti-inflammatory drugs (NSAID's)
- D**econgestants (vasoconstrictors)
- C**ough suppressants

A common cold is a two step process.

The first step is virus infection of nasal cells.

The second step is the activation of the inflammatory mediators which directly cause the cold symptoms.

Ideally, it is desirable to treat both parts of the process but currently drugs for treating the virus infection (antiviral) are not commercially available.

Complications of a Cold

When a common cold has lasted for 7-10 days and is no better or worse, acute bacterial sinusitis may have developed and additional medical care may be required.

Middle ear infection is mainly a problem in children, although it also occurs in adults. During colds, the tube from the back of the throat to the middle ear (eustachian tube) no longer functions well and pressure in the middle ear is abnormal in up to 75% of patients.

Common colds can cause asthma attacks and acute worsening of chronic bronchitis in patients with this condition. These episodes are characterized by increased cough, sputum, shortness of breath, and sometimes fever. The fever is presumably due to a secondary bacterial infection and not the viral cold.

Treatment with antibiotics is usually recommended in acute attacks of chronic bronchitis. People with chronic bronchitis and other types of serious lung and heart disease should, when possible, avoid people with fresh colds (1-3 days).